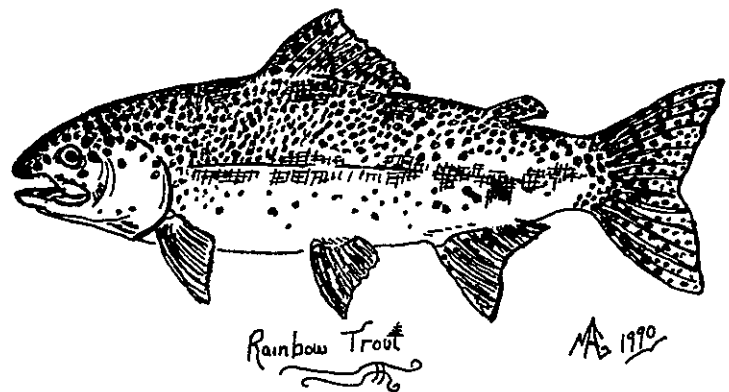


# Chapter V

## IMPLEMENTATION



**CHAPTER V IMPLEMENTATION****A. INTRODUCTION**

The mission of the Forest Service is to "Care For The Land and Serve People." The Forest Plan is the best management tool that will allow us to accomplish this mission. Putting the Forest Plan to work on-the-ground is our task.

Implementation of the Malheur National Forest Plan requires moving from an existing management program, with a budget and "targets" for accomplishment, to a new management program with a budget, goals, objectives, and standards that provide a different way of addressing the issues. This Forest Plan establishes the direction for the Malheur National Forest for the next 10 to 15 years, in conjunction with Forest Service Manuals and Handbooks and the Pacific Northwest Regional Guide.

The remainder of this chapter explains how management of the Malheur National Forest will move from current direction and existing situation to implementation of this Forest Plan. The following sections describe how the public will be involved with Forest Plan implementation, the relationship between project planning and this Forest Plan, the goals of and requirements for monitoring and evaluation, and the circumstances which could require the Forest Plan to be amended or revised.

**B. IMPLEMENTATION DIRECTION**

Implementation of the Forest Plan occurs through identification, selection, scheduling, and execution of management practices to meet management direction provided in the Plan. Implementation also involves responding to proposals by others for use and/or occupancy of National Forest System lands.

**Project Scheduling**

Activity schedules of proposed projects are contained in Appendix A. These activity schedules represent a pool of possible projects and suggested time frames from which annual work programs can be developed contingent upon approved funding. The listing of projects and schedules for the ten year period are maintained by the unit managers. These listings will routinely change as projects are implemented or are removed from the lists for other reasons, and new projects take their place. Projects will be implemented in response to public demand, planned outputs of goods and services in this Plan and the annual budgeting process.

**Consistency With Other Instruments**

This Forest Plan serves as the single land management plan for the Malheur National Forest. All previous land management plans are replaced by this Forest Plan. These include the following plans:

- John Day Unit Plan
- Silvies-Malheur Unit Plan
- South Fork Unit Plan
- Malheur Timber Resource Management Plan

Table V-1 lists planning documents that must be brought into compliance with the Forest plan or developed under the Forest Plan.

**TABLE V-1**  
**Planning Documents to be Revised and/or Developed**

Planning Document	Revise/Update	To Be Developed
Access Management Plan		X
Allotment Management Plans	X	
Aviation Plan	X	
Capital Investment Plan	X	
Communication Systems Plan		X
Co-op Agreements	X	X
Dispersed Recreation Management Plans		X
Electronic Site Plans	X	X
Facilities Management Plan	X	
Fire Management Action Plan		X
Genetic Tree Improvement Plan	X	
Hazardous Materials Plan	X	
Land Ownership Plan	X	
Law Enforcement Plan	X	
Pesticides Management Plan		X
Recreation Feasibility Analysis		X
Research Natural Areas Canyon Creek Dixie, Baldy, Dugout and Shaketable	X	X
Rock Materials Resource Management Plan	X	
Search and Rescue Plan	X	
Site Development Plan	X	

**TABLE V-1 Continued**  
**Planning Documents to be Revised and/or Developed**

Planning Document	Revise/Update	To Be Developed
Special Interest Area Plans		X
Special Use Permits	X	
Spill Prevention and Response Plan	X	
Timber Harvest Activity Schedule	X	
Trail Management Plans	X	X
Tree Seed Inventory	X	
Vegetation Management Plan		X
Viewshed Corridor Plans		X
Wild and Scenic River Plans		X
Wild Horse Management Plan	X	
Wilderness Implementation Schedule		X
Wildlife Emphasis Area Plans		X

As soon as practicable, and generally no later than three years after approval of this Forest Plan, the Forest Supervisor will ensure that, subject to valid existing rights, all outstanding permits, contracts, cooperative agreements, and other instruments for occupancy and use of lands of the Malheur National Forest are consistent with this Forest Plan

#### Public Involvement

It is important to keep the affected and interested publics informed, and to invite their participation as the Forest Plan is implemented. We are dedicated to being good neighbors and working cooperatively with the public to implement the Forest Plan.

Throughout the life of the Forest Plan the Forest will maintain a mailing list of those members of the public who want to stay informed about Forest Plan implementation activities (e.g., monitoring and evaluation activities and results, project level analysis and decisions, Forest Plan amendments, etc.). The public will be notified prior to implementing a Forest Plan Amendment. Also, each year the Forest will prepare a report to summarize the previous years' successes and shortcomings in implementing the Forest Plan (e.g., what was accomplished and what wasn't, what was budgeted and what wasn't, what we learned from monitoring, what amendments were made, etc.).

## IMPLEMENTATION

### Project Implementation

Implementation of the Forest Plan occurs through identification, selection, scheduling, and execution of projects to meet management direction provided in the Plan. Implementation also involves responding to proposals by others for use and/or occupancy of National Forest System lands.

The management direction provided by this Forest Plan comprises the sideboards within which project planning and implementation can take place. It defines management area goals and management standards that guide project activities toward achieving a desired future condition for the various management areas and, collectively, for the Forest. It specifies a schedule for project activities (management practices). It provides direction concerning potential landtype and habitat type constraints, including assumptions about the appropriate vegetation management practices for timber sale projects. On-the-ground project analysis will validate or invalidate the appropriateness of those assumptions. Within this guidance, projects are developed to most efficiently and effectively accomplish the management goals and objectives.

All phases in the Forest Plan implementation process may be affected by the monitoring and subsequent evaluation. For instance, management practices may be dropped or postponed, their scheduling revised, their design modified, or the execution process changed. Information attained is useful in identifying emerging issues and in influencing budget and priority setting. Ultimately, monitoring results will be evaluated to help determine if amendments to the Forest Plan are needed.

### Environmental Analysis

The site-specific projects and activities proposed by this Forest Plan are subject to environmental analysis prior to implementation, as required by NEPA. Environmental analysis is an important part of decision making during Forest Plan implementation. It helps improve resource management decisions while protecting the environment, and assures that the public is involved in the process. Scoping is the first step of any environmental analysis and is used to identify the public issues that are relevant to the decision being made.

Environmental analysis provides an essential source of information for Forest Plan monitoring. First, as project analyses are completed, new or emerging public issues or management concerns may be identified. Second, the management direction designed to achieve Forest-wide and management area goals and objectives is validated by the project analyses. Third, the site-specific data collected for project environmental analyses serve as a check on the correctness of the land assignment. All information included in the project environmental analyses is used in the monitoring process to determine when changes should be made to the Forest Plan.

Environmental impact statements, environmental assessments, or project files for projects will be available for public review at the various offices on the Forest.

### Budget

The purpose of the Forest Plan is to attempt to resolve the issues facing the Forest in a way that maximizes net public benefit, and the resulting budget is an estimate of the costs necessary to do so. This Forest Plan calls for a 68 percent increase over recent budgets (fiscal years 1988-1991). Increases in funding will be needed in all resource programs. The largest increases will be needed in the soil, water, air, fish and wildlife and range programs.

The Forest Plan's scheduled projects are translated into multiyear program budget proposals that identify needed expenditures. This schedule is used for requesting and allocating the funds needed to carry out this Forest Plan's management direction. Upon approval of a final budget, the Forest finalizes and implements the annual program of work. Accomplishment of the annual program of work is the incremental implementation of the Forest Plan. Outputs and activities for individual years may be significantly different from those shown in Chapter 4, depending upon final budgets.

If reduced funding levels are the result of short term annual budget variations, the Forest may be able to produce the outputs as a result of increased funding later in the planning period while not deviating from long term stated resource output levels. If funding levels consistently fall short of needed levels, the Forest Plan objectives cannot be met and the Plan will need to be amended or revised.

The budget will be monitored annually to determine what action may be necessary if needed funds are not appropriated (see Appendix H for budget submitted for Fiscal Year 1992). If funds are inadequate to properly monitor the Forest Plan goals, objectives, standards, and resulting environmental effects, an analysis will be made to develop a further course of action. This may include Forest Plan amendment or revision, or revising implementation schedules.

The Forest Supervisor has the authority to change the implementation schedules to reflect differences between the proposed annual budget and actual appropriated funds. Such scheduling changes are considered an amendment to the Forest Plan, but are not considered a significant amendment nor require the preparation of an EIS unless the changes significantly alter the long-term relationships between levels of multiple use goods and services as projected in this Forest Plan.

When appropriated funds fall short of the amount needed to fully implement the Forest Plan, the most likely remedy will be to adjust implementation schedules accordingly. Receiving less funding than is needed to fully implement the Forest Plan will not be a reason for not following a Forest Plan Standard.

### **C. MONITORING AND EVALUATION**

Monitoring and evaluation comprise the management control system for the Forest Plan. They will provide information to the decisionmaker and the public about the progress and results of implementing the Forest Plan.

Monitoring and evaluation entail comparing the end results being achieved to those projected in the plan. Costs, outputs, and environmental effects, both experienced and projected, will be considered. To do this, a comparison will be made on a sample basis of overall progress in implementing the plan as well as whether the overall relationships on which the plan is based have changed over time. When changes occur, their significance will be evaluated and appropriate amendments or revisions will be made.

The goals for monitoring and evaluating this Forest Plan are to determine:

1. How well the Forest is meeting its planned goals and objectives;
2. If existing and emerging public issues and management concerns are being adequately addressed;

## IMPLEMENTATION

3. How closely the Forest Plan's management standards are being followed;
4. If outputs and services are being provided as predicted;
5. If the effects of implementing the Forest Plan are occurring as predicted, including significant changes in the productivity of the land;
6. If the dollar and manpower costs of implementing the Forest Plan are as predicted;
7. How implementing the Forest Plan is affecting the land, resources, and communities adjacent to or near the Forest;
8. If activities on nearby lands managed by Federal or other governmental agencies are affecting management of the Forest;
9. If research is needed to support the management of the Forest, beyond that identified in Chapter II of the Forest Plan; and
10. If there is a need to amend or revise the Forest Plan.

The monitoring requirements for this Forest Plan are shown in Table V-2, Monitoring Actions. These requirements address the items to be monitored, actions/effects monitored, units, variability threshold, data precision and reliability, suggested methods, who will monitor and when, data location and annual cost.

An annual monitoring program, developed in accordance with the monitoring requirements, will be prepared as part of the Forest's annual work program. This program will be based on available funds. If funds are inadequate to properly monitor the Forest Plan goals, objectives, standards, and resulting environmental effects, an analysis will be made to develop a further course of action. This may include Forest Plan amendment or revision, or revising implementation schedules.

Evaluation of data gathered during monitoring will be guided by the Decision Flow Diagram detailed in Figure V-1. As indicated in the diagram, the results of this evaluation lead to the following types of action:

1. Continuing the management practices;
2. Referring the problem to the appropriate line officer for improvement of the application of the management practice;
3. Modifying the management practice as a Forest Plan amendment;
4. Modifying the land management prescription as a Forest Plan amendment;
5. Revising the schedule of outputs;
6. Revising the cost/unit output; or
7. Initiating revision of the Forest Plan.

The document resulting from the use of the Decision Flow Diagram constitutes the evaluation report. As applicable, the following items will be included in each evaluation report.

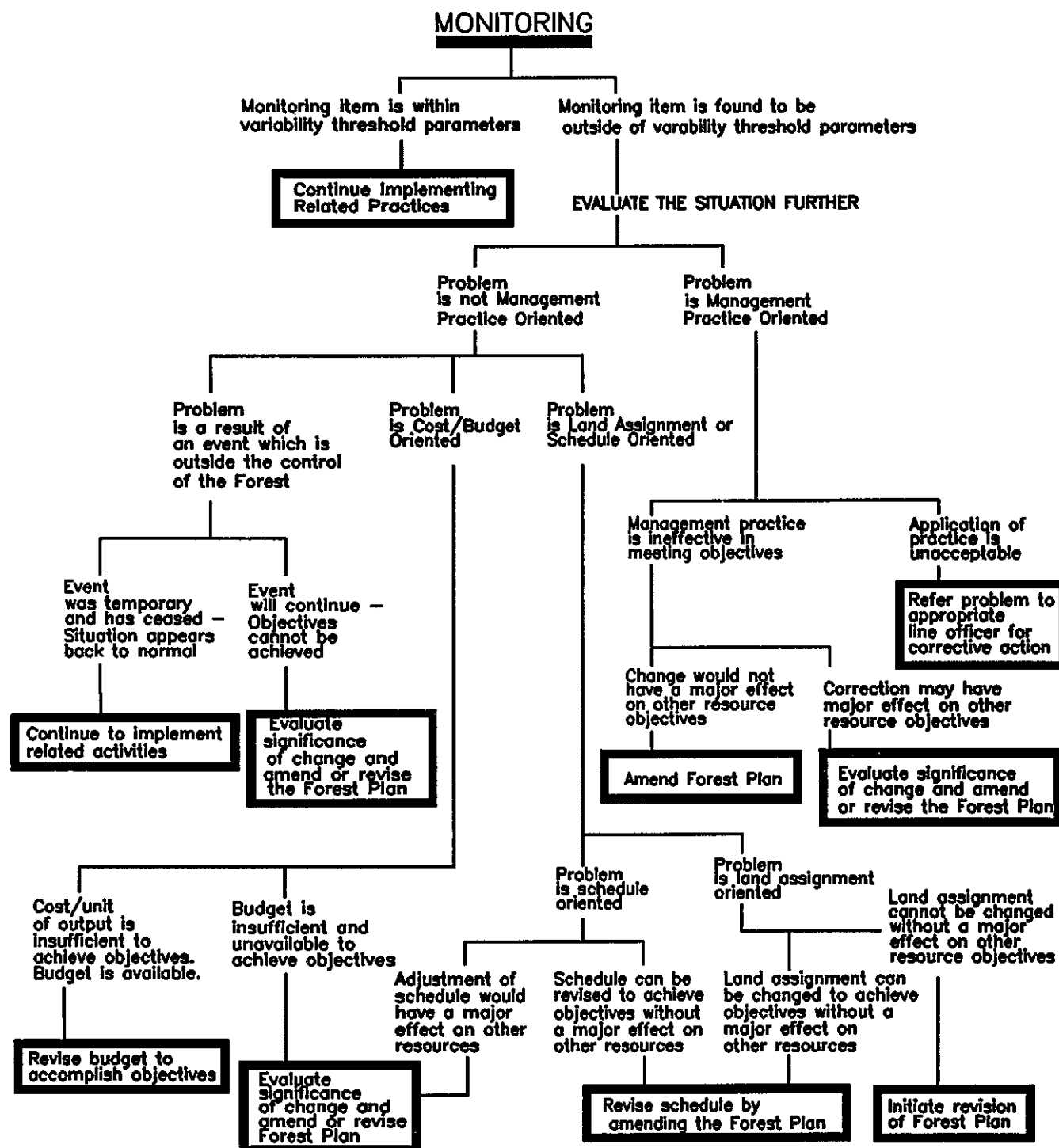
1. A quantitative estimate of performance comparing outputs and services with those projected by the Forest Plan;
2. Documentation of measured effects, including any change in productivity of the land;
3. Unit costs associated with carrying out the planned activities as compared with unit costs estimated during Forest Plan development;
4. Recommendations for changes;
5. A list of needs for continuing evaluation of management systems and for alternative methods of management;
6. A list of additional research needed to support the management of the Forest; and
7. Identification of additional monitoring needs to facilitate achievement of the monitoring goals.

The results and trends of monitoring will be evaluated on a periodic basis and will be made available to other government agencies and to the public.



## DECISION FLOW DIAGRAM

**FIGURE V-1**  
**Decision Flow**  
**Diagram**



**D. AMENDMENT OR REVISION**

The Forest Supervisor may amend the Forest Plan. Based on an analysis of the goals, objectives, standards, and other contents of the Forest Plan, the Forest Supervisor shall determine whether a proposed amendment would result in a significant change in the plan. If the change resulting from the proposed amendment is determined to be significant, the Forest Supervisor shall follow the same procedure as that required for development and approval of a Forest Plan which requires Regional Forester's signature. If the change resulting from the amendment is determined not to be significant for purposes of the planning process, the Forest Supervisor may implement the amendment following appropriate public notification and satisfactory completion of National Environmental Policy Act procedures

This Forest Plan incorporates legal mandates, professional judgment, and the public's stated concerns into a desired future condition for the Malheur National Forest. It charts a path for achieving the desired future condition by developing management goals and objectives and translating them into management direction in the form of standards for management areas on the Forest. National Forest planning is a dynamic process, and the products, Forest Plans, are similarly dynamic. This Forest Plan can and should be modified if conditions warrant. As management goals are applied on-the-ground or as new information is learned about resources, the Plan's goals and objectives, or activities the goals generate, may no longer be appropriate. In such instances, activities may be tailored to fit the resource, or planning objectives as stated in the Plan may be amended. Plans don't specify direction for site-specific management activities. It would be unrealistic and wrong to try to identify, analyze and schedule the myriad number of projects or activities that may occur as this Forest Plan is implemented. Instead, this type of site-specific planning occurs at the project-level planning stage, such as allotment management planning.

The Forest Plan shall ordinarily be revised on a 10-year cycle or at least every 15 years. It also may be revised whenever the Forest Supervisor determines that conditions or demands in the area covered by the plan have changed significantly or when changes in Resources Planning Act policies, goals, or objectives would have a significant effect on Forest-level programs. In the monitoring and evaluation process, the interdisciplinary team may recommend a revision of the Forest Plan at any time. Revisions are not effective until considered and approved in accordance with requirements for the development and approval of the Forest Plan. The Forest Supervisor shall review conditions on the land covered by the plan at least every 5 years to determine whether conditions or demands of the public have changed significantly.

The following is a list of monitored items and their numerical designations, corresponding with Table V-2.

Monitoring Item	Page	Monitoring Item	Page
1. Developed Recreation Facilities	V-11	21. Noxious Weeds	V-16
2. Recreation Opportunity Spectrum (ROS)	V-11	22. Unsuitable Lands	V-16
3. Semi-Primitive Recreation Setting	V-11	23. Silvicultural Practices	V-16
4. Off Road Vehicle (ORV) Use	V-11	24. Reforestation	V-16
5. Wilderness	V-12	25. Timber Harvest	V-16
6. Wild and Scenic Rivers	V-12	26. Timber Offered	V-17
7. Cultural Resource	V-12	27. Timber Harvest Units	V-17
8. Visual Resources	V-12	28. Insect and Disease Control	V-17
9. Resident Fish Habitat	V-12	29. Water Quality Protection	V-17
10. Anadromous Fish Habitat	V-13	30. Water Cumulative Effects	V-17
11. Dead and Defective Tree Habitat	V-13	31. Air Quality	V-18
12. Elk Habitat	V-13	32. Soil Productivity	V-18
13. Old-Growth	V-14	33. Minerals	V-18
14. Bald Eagle Winter Roost Habitat	V-14	34. Road Mileage	V-18
15. Cooper's Sharp-Shinned Hawks Habitat	V-14	35. Administrative Facilities	V-18
16. Research Natural Areas	V-15	36. Budgets	V-18
17. Range Allotment Status	V-15	37. Plan Implementation Costs	V-18
18. Wildhorses	V-15	38. Local Income	V-19
19. Range Improvements	V-15	39. Local Employment	V-19
20. AUMs	V-15	40. Payments to Counties	V-19
		41. Plan Standards - General	V-19

TABLE V-2  
**MONITORING ACTIONS**

MONITORING ITEM	ACTIONS/EFFECTS MONITORED	UNITS	VARIABILITY THRESHOLD	DATA PREC./REL.1/	SUGGESTED METHODS	WHO WILL MONITOR (& WHEN)	DATA LOCATION	ANNUAL COST
<b>1. Developed Recreation Facilities</b>	Developed recreation capacity and facilities that are responsive to customer expectations and desires.	Developed recreation sites	Use levels reach 60% of the theoretical capacity of a developed site. Customer feedback about the kinds of facilities provided not meeting expectations.	M/M	1) Monitor level of use and conditions of facilities. Compile a report on the capability of facility capacity to meet demand. 2) Ongoing monitoring of trends in recreation equipment and facility needs to accommodate changing customer wants.	District Ranger, Recreation Staff (Annually)	RIM and 2300 Files	\$2,500
<b>2. Recreation Opportunity Spectrum (ROS)</b>	Changes in ROS settings occurring over time as a result of Forest Management practices.	ROS settings	More than a 20% change in predicted acres in each ROS class.	M/M	1) Update the District ROS inventory map by recording changes in settings as a result of management activities. 2) Update the Forest ROS map.	District Ranger, Recreation Staff (Annually)	2300 Files	\$6,000
<b>3. Semi-Primitive Recreation Setting</b>	Semiprimitive social and physical setting showing little to no evidence of human activity and meeting the needs of people seeking a place where there is little interaction with other users.	RVDs and encounters per visitor per day	Failure to meet the M A direction, described in the Standards of this Forest Plan, such as unacceptable damage to soil, vegetation, or visual quality and/or increased encounters with other users that detracts from the natural setting.	M/M	1) Apply LAC standards similar to those for the semiprimitive WROS class as outlined in R-6 Supplement #81 to FSM 2320. 2) Establish permanent photo points in potentially high impacts sites. Take photos from these sites to maintain a photographic record of change. 3) Monitor, through field observation, the effects of change in the semiprimitive areas.	District Ranger, Recreation Staff (Annually)	2300 Files	\$5,000
<b>4. Off Road Vehicle (ORV) Use</b>	ORV use to provide for recreation opportunity in a manner that is consistent with the protection and management of other Forest resources.	On site conditions and public comments	If ORV use conflicts with management direction for a M A, such as unacceptable damage to soil, vegetation or visual quality, the area will be considered for closure or restriction of ORV use.	H/H	On the ground review of ORV use and review of public comments.	District Ranger, Recreation Staff (Annually)	2300 Files	\$4,000

MONITORING ITEM	ACTIONS/EFFECTS MONITORED	UNITS	VARIABILITY THRESHOLD	DATA PREC./ REL.1/	SUGGESTED METHODS	WHO WILL MONITOR (& WHEN)	DATA LOCATION	ANNUAL COST
5. Wilderness	WROS (Wilderness Recreation Opportunity Spectrum) Class in accordance with the values specified in the Wilderness Act of 1964 and the Oregon Wilderness Act of 1984.	WROS, On site conditions and public comment.	Limits of acceptable change (LAC) are being met less than 80% of the time during season of use.	H/M	1) Monitor, through field observation, the effects of change in the Wilderness. 2) Establish permanent photo points in potentially high impact sites. Take photos from these sites to maintain a photographic record of change 3) Review public comments	District Ranger (Annually)	2320 files	\$4,000
6. Wild and Scenic Rivers	Physical, social and management elements within the river corridor effects on outstandingly remarkable values.	ROS, on-site conditions and public comment.	Limits of acceptable change are being met less than 80% of the time	M/M	Establish permanent photo points Take photos from these points to maintain a photographic record of change.	District Ranger (Annually)	2300 Files	\$4,000
7. Cultural Resources	Protection of the characteristics of National Register, National Register eligible, and unevaluated cultural resources	Site	Any disturbance to or alteration of a site.	H/M	1) Ongoing monitoring of cultural resource sites by project administrators within project boundaries Cultural Resource Management specialist will review sites within three active project areas per district. 2) Compile report of impacted significant sites and measures taken to repair damages.	Forest Archaeologist, District Ranger (Annually)	Files	\$15,000
8. Visual Resources	Cumulative effects of all resource management activities with a corridor viewshed are meeting the future visual condition, as defined in the Forest Plan	VQO	Existing visual condition varies from desired visual condition by more than 10% in a corridor viewshed.	M/M	1) Interdisciplinary review of 2 projects on the Forest. 2) Ongoing review of how effective the standards are in achieving visual quality objectives. 3) Conduct existing visual condition inventory.	District Ranger, Landscape Architect (Annually)	2380 Files	\$5,000
9. Resident Fish Habitat	Resident fish habitat capability in all subwatersheds on the Forest, using identified management indicator species (bull trout, cutthroat trout, and rainbow trout.	Fish habitat capability	More than 10% decrease in habitat capability in a subwatershed.	H/M	1) Develop base line data and determine changes in fish habitat capability. 2) Monitor macroinvertebrates on two sample streams per District per year.	Fisheries Biologist, District Ranger (Annually)	2600 Files	\$20,000

MONITORING ITEM	ACTIONS/EFFECTS MONITORED	UNITS	VARIABILITY THRESHOLD	DATA PREC./ REL.1/	SUGGESTED METHODS	WHO WILL MONITOR (& WHEN)	DATA LOCATION	ANNUAL COST
10. Anadromous Fish Habitat	Habitat capability in all subwatersheds with existing, or potential anadromous fish distribution Forest-wide, increase anadromous fish habitat capability by 50% in the first decade, with a long term goal of increasing habitat capability by 150%.	Habitat capability	1) More than 10% decrease in habitat capability in a subwatershed 2) Forest-wide habitat capability +/- 10% from the projected level.	H/M	Develop base line data and determine changes in fish habitat capability 2) Monitor macroinvertebrates on two sample streams per District per year as long-term indicators	Fisheries Biologist, District Ranger (Annually)	2600 Files	\$20,000
11. Dead and Defective Tree Habitat	Habitat for snag dependent species	Number, size and distribution of trees, snags and logs to meet habitat capability objectives, using primary cavity excavators as MIS	1) More than 10% of the surveyed areas have less than 90% of the prescribed trees, snags and logs 2) Expected primary cavity excavators are absent from more than 10% of the surveyed sites	M/M	1) Examine habitat on 20% of timber sales within one year of sale closure per district Evaluate timber inventory plot data each ten year period Establish and measure transects to measure longevity of snags in areas where fuelwood is gathered 2) Conduct surveys to determine if the expected primary excavators are occupying the habitat.	Wildlife Staff, District Ranger (Annually)	2600 Files	\$10,000
12. Elk Habitat	Habitat capability to support populations identified in this Forest Plan	Elk habitat capability, estimated elk populations	1) Populations are more than 20% below or above the plan objective for a 5 year period 2) No threshold identified at this time Monitoring to record current condition and changes. 3) Habitat capability is more than 20% below the objective (10% on winter range) in any given management unit (3rd order watershed) at any point in time	M/M	1) Annual review of state agency census records 2) Refine information on areas of elk use and levels of use Determine amount and quality of available forage on sample plots Determine amount of use by livestock and big game and calculate forage needs 3) Use habitat relationship modeling for projects affecting habitat capability Track cover, forage, and road density changes on all projects that affect these factors by review of project plans and reports Field check to confirm that activity reporting is adequate	Wildlife Biologist, District Ranger (Annually)	2600 Files	\$12,000

MONITORING ITEM	ACTIONS/EFFECTS MONITORED	UNITS	VARIABILITY THRESHOLD	DATA PREC./ REL.1/	SUGGESTED METHODS	WHO WILL MONITOR (& WHEN)	DATA LOCATION	ANNUAL COST
13. Old-Growth	Old-Growth Habitat	Number, size and distribution of old growth forest stands.	1) All designated sites meet the specifications identified in the plan. 2) The components that provide effective habitat fall below the desired level. 3) MIS populations are more than 10% below plan objective for a five year period. 4) The old growth acreage remaining or the amount being converted in a five year period deviates from the planned amount by more than 10%.	H/M	1) Inventory and evaluate dedicated sites to ensure that they all meet the specifications. 2) Examine 10% of areas to determine habitat effectiveness. Review project activities that may affect the habitat effectiveness of any dedicated site (e.g., feeding habitat that is outside the dedicated old growth site). 3) Survey selected populations on 10% of areas (using random sample of areas). 4) Review all timber harvest areas to determine which stands meet the old growth specifications. Track acres and location of harvested old growth stands. Retain stand exam and cruise data for these stands and any other data describing the structure of the stands. Evaluate Forest inventory data when the new data becomes available.	Wildlife Biologist, District Ranger (Annually)	Files	\$15,000
14. Bald Eagle Winter Roost Habitat	Suitable bald eagle winter roosting sites. Meet recovery levels established in the Pacific States Bald Eagle Recovery Plan.4/	Eagle occupancy and population	1) More than 10% of the designated sites are unsuitable for occupancy at any given time. 2) The winter population declines by more than 10% over 5 years 3) Standards are not met by management activities more than 10% of the time.	H/H	1) Evaluate condition of existing and potential roost sites, using descriptions from the Pacific States Bald Eagle Recovery Plan and other appropriate documents. Particularly note any change in conditions from previous surveys. Survey 20% annually. 2) Conduct annual interagency population trend survey, recording use of individual roost sites 3) Review each project plan annually to ensure Management Standards have been met.	Wildlife Biologist, District Ranger (Annually)	Files	\$5,000
15. Cooper's & Sharp-Shinned Hawks Habitat	Habitat areas for at least viable populations of Cooper's and sharp-shinned hawks.2/		1) The components that provide habitat effectiveness fall 10% below the desired level.1/ 2) Populations are more than 10% below the desired level for 5 years 3/		1) Examine 10% of suitable habitat areas each five years to determine habitat effectiveness.1/ 2) Survey populations on 10% of areas in appropriate Forest types (using a random sample) each five years 2/	Wildlife Biologist, District Ranger (Annually)	Files	\$8,500

MONITORING ITEM	ACTIONS/EFFECTS MONITORED	UNITS	VARIABILITY THRESHOLD	DATA PREC./ REL.†/	SUGGESTED METHODS	WHO WILL MONITOR (& WHEN)	DATA LOCATION	ANNUAL COST
16. Research Natural Areas	Manage areas for nonmanipulative research, observation, and study of undisturbed ecosystems.	Provisions and conditions in the establishment report for the Canyon Creek Research Natural Area.	Less than 100%	H/H	Examine Research Natural Area to see if research needs are being met.	Forest Supervisor  (Years 3, 6, 9)	Files	\$2,000
17. Range Allotment Status	Monitor to see if Forest Plan objectives are being met.	Allotments, AMPs	At least 90% of 105 allotments meet Forest Plan objectives at end of decade.	H/H	Inspect each allotments prior to, during, and after livestock use. Number of allotments that; 1) have implemented AMPs; 2) approved AMPs not yet implemented; and 3) allotments not managed to fully meet Forest Plan objects.	District Ranger (Annually, during May thru Nov)	2210 Files	\$100,000
18. Wildhorses	Murders Creek Wildhorse population	Numbers of wildhorses.	Maintain a Wildhorse Herd which averages 100 head in size over a 5 year period.	H/H	Annual aerial and ground census (143,140 Ac). Number of wildhorses removed	Bear Valley District Ranger (Annually)	2260 Files	\$21,500 (143,140 x \$ 15)
19. Range Improvements	Range improvements accomplished as planned, to meet IDT objectives in AMP (Table A-10)	Structures, fences or pipelines will be reported as one (1) structure per 1/2 mile, or portion thereof Report others as 1 unit	Improvements funded must be accomplished to standard	H/H	Annually review district accomplishment on Management Attainment Report and conduct sample field inspections	District Ranger and Range Staff (Annually)	2240 Files	\$5,000
20. AUMs	AUMs produced	AUMs	10% below levels stated in the Forest Plan	H/H	Annual Use Report	Range Staff (Annually)	Report file	\$500



MONITORING ITEM	ACTIONS/EFFECTS MONITORED	UNITS	VARIABILITY THRESHOLD	DATA PREC / REL <sup>1/</sup>	SUGGESTED METHODS	WHO WILL MONITOR (& WHEN)	DATA LOCATION	ANNUAL COST
<b>21. Noxious Weeds</b>	Area of forest	Acres	Any acres infested with weeds classified by State of Oregon as noxious	H/H	Annually review known noxious weed infestations	District Ranger and Ranger Staff (Annually)	2240 Files	\$4,000
<b>22. Unsuitable Lands</b>	Examine lands to determine with greater resolution, land suitability, giving special emphasis to those areas classified as unsuitable (in the first 10 years). Insure that timber harvests are not occurring on unsuitable lands to meet chargeable harvest volumes	Acres	1) More than a plus/minus 10% change in the unsuitable land base Any activity on unsuitable lands that is designed to meet timber objectives.	H/H	Use current data bases and project files to track activities Review each proposed activity to ensure activity is compatible with timber land classification. Review land classification of each area through standard examinations or other in-place inventory	Forest Silviculturist (Annually)	GIS/ Current Data Base	\$2,000
<b>23. Silvicultural Practices</b>	Silvicultural practices accomplished in each M A and growth of plantations.	Acres of accomplished silvicultural practices for each M.A. and plantation growth rates	1) There is a +/- 10% change in planned silvicultural practice (natural regeneration, reforestation with genetic stock, precommercial thinning, overstory removal, etc ) by working group, M A., and watershed. 2) There is a change in growth projection which will have an effect of over plus/minus 2% on the planned ASQ.	H/H	1) Review current data bases and reporting devices to track activities Review records to compare actual work to projected 2) Annually sample units regenerated and/or precommercially thinned which occurred after the implementation of the Forest Plan prescriptions to determine growth rates.	District Ranger, Forest Silviculturist (Annually)	2400 Files	\$5,000
<b>24. Reforestation</b>	Determine if NFMA requirements and plan assumptions for regenerated lands are being met	Harvest unit, number, type and distribution of regeneration	More than 10% of all regenerated stands fail to meet reforestation goals within the desired time frame, stocking level, and silvicultural method The elapsed time from site availability to stocking exceeds {CFR 219 27 (c) (3)}	H/H	Reforestation stocking surveys, post sale reviews of accomplishment reports.	Timber Staff, Forest Silviculturist (Annually)	GIS Timber Reports	\$9,000
<b>25. Timber Harvest</b>	Timber harvest outputs by harvest method and timber working group in each M A.	MCF, MCF/ac, MBF	Actual and projected timber harvest type, working group and M A deviate more than 10% from that predicted in the Plan for the decade or deviate more than 25% on an annual basis	H/H	Use current data bases and report devices to determine significance of deviation.	Forest Silviculturist, Timber Staff (Annually)	STARS/GIS	\$5,000

MONITORING ITEM	ACTIONS/EFFECTS MONITORED	UNITS	VARIABILITY THRESHOLD	DATA PREC./REL.1/	SUGGESTED METHODS	WHO WILL MONITOR (& WHEN)	DATA LOCATION	ANNUAL COST
26. Timber Offered	Volumes of timber sold annually and for the plan period in ASQ, and timber sale program quantity	MCF, MBF	Projection of ten-year program, total and by species group, does not exceed the ASQ or timber sale program quantity. Individual components can vary by plus/minus 10% over the decade and by plus/minus 25% on a year to year basis.	H/H	Use current data bases and/or cut and sold report. Compare volume in cubic feet, by total volume and by species group. Determine action required (plan adjustment) based on significance of end-of-decade difference between projection and planned.	Timber Staff, Forest Silviculturist (Annually)	STARS/GIS	\$5,000
27. Timber Harvest Units	Unit sizes and dispersal of units across the Forest meet Standards and Guidelines. Were exceptions properly documented and reviewed	Acres	1) Any of the units exceed size standards, without following proper procedures {36CFR 219.12 (k)(5)} 2) There is a 5% increase from the desired dispersion constraint over the decade	H/H	1) Conduct annual review of the Forest planning data base and/or selected timber sale records 2) Review two timber sale Environmental Assessments per District per year	District Ranger, Ranger District Staff (Annually)	1950 NEPA Files	\$3,000
28. Insect and Disease Control	Population levels of insect and disease agents and their effects on tree growth	Acres affected	1) Insect populations and/or infection centers are on the increase 2) When 10% of a M A working group is effected by insect or disease agents	M/M	1) Annual review of current insect and disease survey maps to determine trends. 2) Conduct special surveys to determine effects on growth.	Timber Staff, Forest Silviculturist (Annually)	FPM Survey Report	\$5,000
29. Water Quality Protection	Stream conditions relating to State Water Quality Standards.	Water quality parameters	Whenever State Water Quality Standards are exceeded	M/M	Monitor management activities on selected subwatersheds for effects on key water quality parameters.	Forest Hydrologist, District Staff (Annually)	District, S O Files	\$26,000
30. Water Cumulative Effects	Stream conditions relating to State Water Quality Standards. Risk of significant changes in water and sediment yields.	Water quality parameters. Level of management intensity	Whenever State Water Quality Standards are exceeded when harvesting at the Forest sustained yield	M/M	Review ten year timber sale action plans, EA's harvest records, and aerial photographs. Make field observations to document acreages in disturbed condition. Review evaluations of assessments, including activities on land in other ownership. Use low elevation photographs and/or measure stream channel cross sections with photopoints. Intensely sample all watersheds where this is an issue or concern.	Forest Hydrologist, District Staff (Annually)	2520 Files	\$30,000

MONITORING ITEM	ACTIONS/EFFECTS MONITORED	UNITS	VARIABILITY THRESHOLD	DATA PREC./ REL.1/	SUGGESTED METHODS	WHO WILL MONITOR (& WHEN)	DATA LOCATION	ANNUAL COST
31. Air Quality	To determine baseline and detect trends in water chemistry and biology, visibility, flora, and other Air Quality Related Values in wilderness areas. To be used as basis for emission source permit recommendations.	AQRV (air quality related values)	Report on baseline condition and any changes	L/H	Specific to individual AQRVs Units to be the same as used to set limit at acceptable change.	Watershed, S.O. (Annually)	FSM 2580	\$10,000
32. Soil Productivity	Soil disturbing management activities will be monitored to determine if Regional and Forest Soil Protection Standards are being met.	1)% of an activity area 2)% effective ground cover	Minimum of 80% of an activity area left in a fully productive condition (Chapter IV, Sec E, Forest-Wide Standards)	M/M	Guidelines for Sampling Some Physical Conditions of Surface Soils-R6-RWM-146-1983.	Watershed Staff, District Ranger (Annually)	GIS, 2550 files	\$15,000
33. Minerals	Mining activities, effects on resources and rehabilitation.	Operating Plans	More than 30% non-compliance with Standards	M/M	Review and evaluation of 10% of the current development and rehabilitation projects every year	District Ranger (Annually)	2810, 2850 Files	\$5,000
34. Road Mileage	Open road miles by traffic service level and maintenance level	Miles	More than 10% of the projects evaluated don't meet objectives and standards for design and long-term use.	H/M	On the ground field review of project activities, miles constructed, reconstructed, obliterated, and closed.	Forest Engineer, District Ranger (Annually)	Project file, Annual Accomplishment Report.	\$5,000
35. Administrative Facilities	Adequate facilities, quantity and quality, that meet the needs of the Forest workforce and the public	Sq ft.	Office facilities not meeting the minimum standards for offices as established by the Government Services Administration. Facilities not meeting the UBC and OSHA standards for safety Employee and customer feedback about the inadequacy of facilities.	H/H	Review, update and monitor facility management plan and condition of facilities.	Forest Supervisor (5 years)	Files	\$6,000
36. Budgets	Funding of all resource programs and activities Monitoring program is fully operational and financed	Dollars	Plus/minus 10%	H/H	1) Review budgets and programs of work annually in relationship to Forest Plan projections. Evaluate trends in relation to the remaining years of the Forest Plan 2) Review monitoring budgets annually.	Budget & Finance (Annually)	B&F Files	\$1,000

MONITORING ITEM	ACTIONS/EFFECTS MONITORED	UNITS	VARIABILITY THRESHOLD	DATA PREC / REL <sup>1/</sup>	SUGGESTED METHODS	WHO WILL MONITOR (& WHEN)	DATA LOCATION	ANNUAL COST
37. Plan Implementation Costs	Projected expenditures compared to actual expenditures to implement the Forest Plan	Dollars	Plus/minus 25% of projected expenditures	H/H	Review Forest financial records and accomplishment reports to determine average annual costs for all major resource activities	Budget & Finance	B&F Files	\$1,000
38. Local Income	Economic and community stability	Population, income	Plus/minus 15% in 3 years (corrected for inflation).	M/M	Review of U.S. Census Reports, State Publications, County, and Local Agency reports	Public Affairs (Annually)	Files	\$1,000
39. Local Employment	Employment	Percent employment	Plus/minus 15% in 3 years	M/M	Review U.S. Census Reports, State Publications, County, and Local Agency reports.	Public Affairs	Files	\$1,000
40. Payments to Counties	Deviation from payment levels projected in the Forest Plan	Dollars	Plus/minus 15% in 3 years (corrected for inflation)	H/H	USDA Forest Service Reports, State Publications, and County Reports	Forest Supervisor (Three years)	Files	\$200
41. Plan Standards (General)	Standards and Guidelines not covered by separate monitoring item	Applicable Standards and Guidelines	More than 10% of projects evaluated do not meet standards. More than 10% deviation from projected outputs and/or accomplishments	M/H	Review selected activities in order to cover those standards that are not already covered by other monitoring items in the Forest Plan. Conduct annual interdisciplinary review of at least one project per District per year	District Ranger, S O Staff (Annually)	Files	\$5,000

489,200

<sup>1/</sup>Data Precision and Reliability

<sup>2/</sup>This Forest Plan does not prescribe a level of habitat nor is the amount and distribution of habitat that is required to maintain viable populations of these birds known at this time. A literature search will have to be done first before any Management Standards can be developed. Additional research will also be required to develop and/or refine and test habitat relationships models for these species.

<sup>3/</sup>This Forest Plan does not prescribe a population level. It is necessary to determine the population level needed to maintain long-term viability and a target population level to monitor for that will provide for species viability under the habitat conditions expected and account for natural fluctuations in the population. This is a high priority research need for the Forest. In setting a desired population level, the Forest will need to designate a level that exceeds the viable population level by at least the amount designated for the threshold of variability. Additional planning and research is also needed on monitoring methods and sampling design.

<sup>4/</sup>Interagency population trend surveys are currently coordinated with the Bureau of Land Management and the Oregon Department of Fish and Wildlife.

There are two winter roost sites with established and confirmed eagle use and 13 sites identified as potential roost sites.

The Forest does not have any identified potential nest sites. The *Pacific States Bald Eagle Recovery Plan* identifies potential for nesting sites on the John Day and Malheur Rivers.

